

REMARKS

Favorable reconsideration of this application, in light of the following discussion and in view of the present amendment, is respectfully requested.

Claims 3, 13, 18 and 28-30 are amended. Claims 1-32 are pending in the application.

I. Claim Objections

In the Office Action, at page 2, numbered paragraph 2, claims 28-30 were objected to because of informalities. Claims 28-30 were amended in light of the Examiner's comments, and accordingly, withdrawal of the claim objections is respectfully requested.

II. Rejection under 35 U.S.C. § 102

In the Office Action, at pages 3-8, numbered paragraphs 4-7, claims 3-4, 13-14, 18-19 and 28 were rejected under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 5,717,674 to Mori et al. This rejection is respectfully traversed because Mori does not discuss or suggest at least:

a single diffraction grating selectively splitting the first and the second laser beams into three rays depending on which optical disk is to be accessed, wherein the three rays comprise a main ray and two sub-rays; and

a photo-detector selectively receiving the three rays of the first laser beam and the three rays of the second laser beam at different detecting portions for data recording and/or reproduction and error detection and compensation, wherein the detecting portions comprise a central detecting portion and two peripheral detecting portions,

as recited in amended independent claim 3.

Further, Mori does not discuss or suggest at least:

selectively splitting the first and the second laser beams into three rays depending on which optical disk is to be accessed with a single diffraction grating, wherein the three rays comprise a main ray and two sub-rays depending on which optical disk to be accessed; and

selectively receiving the three rays of the first laser beam and the three rays of the second laser beam at different detecting portions for the data recording and/or reproducing and error detection and compensation, wherein the detecting portions comprise a central detecting portion and two peripheral detecting portions,

as recited in amended independent claim 13.

In addition, Mori does not discuss or suggest at least:

a single diffraction grating selectively splitting the first and the second laser beams into a main ray and two sub-rays depending on which optical disk is to be accessed; and

a single photo-detector selectively receiving the three rays of the first laser beam and the three rays of the second laser beam at different detecting portions to record and/or reproduce the data and to detect and compensate errors, wherein the photo-detector is a six-split photo-detector comprising four cells on a central detecting portion and two cells on peripheral detecting portions,

as recited in amended independent claim 18.

Also, Mori does not discuss or suggest at least:

selectively splitting the first and the second laser beams with a single diffraction grating into a main ray and two sub-rays depending on which optical disk is to be accessed, wherein the main ray is a zero order light and the sub-rays are first order lights; and

selectively receiving the three rays of the first laser beam and the three rays of the second laser beam at different detecting portions of a single photodetector to record and/or reproduce the data and to detect and compensate errors, wherein the detecting portions comprise a central detecting portion and two peripheral detecting portions,

as recited in amended independent claim 28.

As a non-limiting example, an embodiment of the present invention as set forth in claim 3, for example, is directed to a compatible disk player that includes first and second laser diodes emitting first and second laser beams to first and second optical disks. A single diffraction grating selectively splits the first and second laser beams into three rays, depending on which disk is to be accessed, and a single photo-detector selectively receives the rays of the first beam and the rays of the second beam at different detecting portions.

Mori discusses an optical pickup apparatus that includes a semiconductor laser 1 for DVD reproduction and a semiconductor laser 2 for CD reproduction. Each laser 1 and 2 in Mori emits a light that is incident on a three-beam generating diffraction grating 3. The diffraction grating 3 divides the first and second laser beams emitted from lasers 1, 2 at least into three beams, including a main beam and sub-beams. A transmission type holographic optical element 4 transmits the three light beams (for each laser) diffracted by the diffraction grating 3 onto the recording surface of a CD or a DVD. The returned beams are reflected at the recording

surface of the CD or DVD and transmitted through condenser lens 5 and then reach a six-segment photodetector 7 or a six-segment photodetector 8.

In Mori, in reproduction of the DVD, the returned beam of the laser light emitted from laser 1 impinges upon photodetector 7, while in reproduction of the CD, the returned beam of the laser light emitted from laser 2 impinges upon photodetector 8. The semiconductor laser 1 and the six-segment photodetector 7 are used only for reproduction of the DVD, and semiconductor laser 2 and the six-segment photodetector 8 are used only for reproduction of the CD.

While Mori does show different lasers 1, 2 for reproduction of the DVD versus reproduction of the CD, Mori not discuss or suggest that the diffraction grating selectively splits the first and second laser beams, depending on which optical disk is to be accessed. Mori discusses that the laser beams are split, but does not suggest that the diffraction grating selectively splits the laser beams on the basis of which disk is to be accessed.

Further, while Mori discusses two photodetectors, each photodetector being able to receive the rays originally emitted from one of the lasers, Mori does not discuss or suggest that a single photodetector is used. Mori does not suggest that the single photodetector selectively receives rays of the first beam and the second beam at different detecting portions. The photodetectors of Mori are specific to each of the lasers, and photodetector 7 is only used in conjunction with laser 1, while photodetector 8 is only used in conjunction with laser 2.

Mori does not discuss or suggest a single photodetector that selectively receives rays from the first beam and the second beam at different detecting portions. Mori does not discuss a selective reception from one photodetector, but provides for two separate photodetectors to each be used separately to separately receive the rays from one or the other of the lasers 1, 2.

Therefore, as Mori does not discuss or suggest "a single diffraction grating selectively splitting the first and the second laser beams into three rays depending on which optical disk is to be accessed," and Mori does not discuss or suggest "a photo-detector selectively receiving the three rays of the first laser beam and the three rays of the second laser beam at different detecting portions for data recording and/or reproduction and error detection and compensation," as recited in amended independent claim 3, claim 3 patentably distinguishes over the reference relied upon. Remaining independent claims 13, 18 and 28, with differing scope and breadth, are allowable for at least similar rationale. Accordingly, withdrawal of the § 102(b) rejection is respectfully requested.

Claims 4, 14 and 19 depend directly from independent claims 3, 13 and 18, respectively, and include all the features of their respective independent claims, plus additional features that are not discussed or suggested by the reference relied upon. For example, claim 4 recites that "the photo-detector receives the main ray of the first laser beam on the central detecting portion to determine a focus error and to record and/or reproduce the data on/from the first optical disk, and receives the sub-rays of the first laser beam on the peripheral detecting portions to determine a tracking error." Therefore, claims 4, 14 and 19 patentably distinguish over the reference relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 102(b) rejection is respectfully requested.

III. Allowable Subject Matter

The Applicants are appreciative of the allowances of claims 1-2, 5-12, 15-17, 20-27 and 29-32.

Conclusion

In accordance with the foregoing, claims 3, 13, 18 and 28-30 have been amended. Claims 1-32 are pending and under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

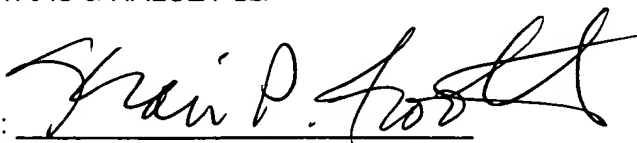
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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